MATH 2313.010 Calculus I – Spring 2018

Instructor: Dr. Susan Abernathy-Taylor  
Office: MCS 220i  
Phone: 325.486.5442  
Office Hours: M 9-12, T 2-4  
W 9-11, F 9-12  
or by appointment

Email: All of the following addresses work. They all go to the same inbox; you need only send an email to one of them.  
susan.abernathy@angelo.edu  
susan.taylor@angelo.edu  
staylor28@angelo.edu

Time/Location: MWF 8:00-8:50am in MCS 214  
Textbook: Essential Calculus: Early Transcendentals; 2nd edition by James Stewart  
ISBN: 9781337759762

Grading: Grades will be determined as follows:  
Tests: 55% (highest two 20%, lowest 15%)  
Homework: 20%  
Quizzes: 5%  
Final Exam: 20%

Final grades will be based on a standard 10-point grading scale (A is 90+, B is 80-89.99, C is 70-79.99, D is 60-69.99, F is below 60). Final grades will not be rounded or bumped.

Disclaimer: This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date course information, contact the instructor.

Attendance: Students are expected to attend every class. Attendance will be taken daily, and excessive absences will be reported to the appropriate university authorities.

Homework: Homework sets will be assigned at least once a week. They will be announced in class and posted on Blackboard. Late homework (homework turned in more than five minutes after class starts) is not accepted. If you know you will miss class, you may turn in your homework early. To receive credit for a problem, you must show your work and write legibly. Your lowest three homework grades will be dropped.

Quizzes: Short quizzes may be given throughout the semester. No make-up quizzes will be given. Your lowest quiz grade will be dropped.

Tests: There will be three in-class exams. Your highest two test grades will each count for 20% of your overall grade, and your lowest test grade will count for 15% of your overall grade. There will also be a cumulative final exam at the end of the semester. Tentative exam dates are listed below. In general, calculators will not be allowed during exams.

<table>
<thead>
<tr>
<th>Test</th>
<th>Date</th>
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<tbody>
<tr>
<td>Test 1</td>
<td>Friday, February 16</td>
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<tr>
<td>Test 2</td>
<td>Wednesday, March 28</td>
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<tr>
<td>Test 3</td>
<td>Friday, April 27</td>
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<tr>
<td>Final Exam</td>
<td>Monday, May 7, 8-10am</td>
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</tbody>
</table>
Make-up Policy: If you have a conflict with an exam, you must talk to me about it beforehand if possible. If you miss a test, your final exam grade will replace it. You will receive a grade of zero on any subsequent missed tests. Make-up tests will be given (or not) at the discretion of the instructor.

Student Responsibilities: The student is solely responsible for:

- Maintaining academic honesty.
- Completing each assignment by the specified due date.
- Obtaining assignments and other materials for classes missed.
- Positively contributing to the classroom environment. Be courteous; don’t use your phone in class; be on time; don’t disrupt your fellow classmates.
- Being proactive about their grade in this course. You are not given a grade in a college course; you EARN your grade. You may want or need a particular grade to graduate, maintain a scholarship, or stay in athletics, for instance. **It is your responsibility to put in as much effort as it takes to earn this grade.** This includes utilizing (as needed) all available study aid options (going to office hours and/or Math Lab, reading outside textbooks, meeting with the instructor, etc.) to resolve any questions or concerns you might have about any aspect of the course.

Student Disability Services: ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student’s responsibility to initiate such a request by contacting:

Dallas Swafford  
Director of Student Disability Services  
Office of Student Affairs  
325-942-2047  
dallas.swafford@angelo.edu

Title IX: Angelo State University is committed to the safety and security of all students. If you or someone you know experience sexual harassment, sexual assault, domestic or dating violence, stalking, or discrimination, you may contact ASU’s Title IX Coordinator:

Michelle Boone  
Director of Title IX Compliance  
325-486-6357  
michelle.boone@angelo.edu

Student Absence for Observance of Religious Holy Days: A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. ([http://www.angelo.edu/opmanual/](http://www.angelo.edu/opmanual/) -- OP 10.19)
Incomplete Grade Policy: It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 Grading Procedures for more information.

Student Conduct Policies

- **Academic Integrity:** Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

  The College of Science and Engineering adheres to the Statement of Academic Integrity

- **Plagiarism:** Plagiarism is a serious topic covered in ASU's Academic Integrity policy in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

  In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

  Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the ASU Writing Center.

- **Copyright Policy**

  Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

General Policies Related to this Course: All students are required to follow the policies and procedures presented in these documents:

- Angelo State University Student Handbook
- Angelo State University Catalog
**Daily Schedule:** This subject matter listed below is tentative and subject to change. For current information about course topics, please contact the instructor.

1. 1.1  
2. 1.1  
3. 1.2  
4. 1.3  
5. 1.3  
6. 1.4  
7. 1.5  
8. 1.5  
9. 1.6  
10. 2.1  
11. 2.2  
12. 2.2  
13. Review  
14. **Test 1 (Friday, Feb. 16)**  
15. 2.3  
16. 2.4  
17. 2.4  
18. 2.5  
19. 2.5  
20. 2.6  
21. 2.7  
22. 2.7  
23. 2.8  
24. 3.3  
25. 3.5  
26. 3.7  
27. Review  
28. **Test 2 (Wednesday, March 28)**  
29. 3.7  
30. 4.1  
31. 4.2  
32. 4.3  
33. 4.4  
34. 4.4  
35. 4.5  
36. 4.5  
37. 4.6  
38. 4.7  
39. Review  
40. **Test 3 (Friday, April 27)**  
41. 4.7  
42. Review  
43. Review  
44. **Final Exam**  
   Monday, May 7, 8-10am

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**Student Learning Outcomes – Math 2313**

1. **The students will demonstrate factual knowledge including the mathematical notation and terminology used in this course.** Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in Calculus I as they pertain to functions, limits, and derivatives.

2. **The students will describe the fundamental principles including the laws and theorems arising from the concepts covered in this course.** Students will identify and apply the laws and formulas that result directly from the definitions; for example, domain and range of a function, operations on functions, the limit laws, and the differentiation formulas.

3. **The students will apply course material along with techniques and procedures covered in this course to solve problems.** Students will use the facts, formulas, and techniques learned in this course to sketch graphs of functions, to study position-velocity-acceleration problems, to solve related rate and optimization (“max-min”) problems.

4. **The students will develop specific skills, competencies, and thought processes sufficient to support further study or work in this field or related fields.** Students will acquire a level of proficiency in the fundamental concepts and applications necessary for further study in academic areas requiring Calculus I
as a prerequisite, or for work in occupational fields requiring a background in Calculus I. These fields might include computer science, engineering, the physical and natural sciences as well as mathematics.

Course Content

Textbook: *Essential Calculus: Early Transcendentals;* 2nd edition; by James Stewart. The following chapters are covered. (See textbook "Contents")

1. **Functions and Limits:** Functions and Their Representations, A Catalog of Essential Functions, The Limit of a Function, Calculating Limits, Continuity, Limits Involving Infinity.
3. **Inverse Functions:** Derivative of Logarithmic and Exponential Functions, Inverse Trigonometric Functions, Indeterminate Forms and l’Hospital’s Rule.
4. **Applications of Differentiation:** Maximum and Minimum Values, the Mean Value Theorem, Derivatives and Shapes of Graphs, Curve Sketching, Optimization Problems, Antiderivatives.

Optional Topics: Exponential Functions (3.1), Inverse Functions and Logarithms (3.2), Exponential Growth and Decay (3.4), Hyperbolic Functions (3.6)